

What Is Claimed Is:

1 1. A method to facilitate suspending threads in a platform-
2 independent virtual machine implemented on an operating system that lacks a
3 global mechanism for suspending threads, comprising:
4 executing a thread requiring other threads to be suspended;
5 changing a scheduling policy for the thread; and
6 raising a priority of the thread to a highest available priority, whereby
7 changing the scheduling policy and raising the priority of the thread causes the
8 thread to run to completion while other threads do not run.

1 2. The method of claim 1, further comprising:
2 upon completion of the thread,
3 reducing the priority of the thread to an assigned priority;
4 and
5 returning the scheduling policy of the thread to an assigned
6 scheduling policy.

1 3. The method of claim 1, wherein the thread requiring other threads
2 to be suspended includes a garbage collection thread.

1 4. The method of claim 1, wherein changing the scheduling policy for
2 the thread includes changing the scheduling policy from round-robin to first-in,
3 first-out.

1 5. The method of claim 1, wherein the operating system that lacks the
2 global mechanism for suspending threads includes POSIX.

1 6. The method of claim 1, wherein the platform-independent virtual
2 machine includes a JAVA VIRTUAL MACHINE™.

1 7. The method of claim 1, further comprising performing a garbage
2 collection with the thread.

1 8. A computer-readable storage medium storing instructions that
2 when executed by a computer cause the computer to perform a method to
3 facilitate suspending threads in a platform-independent virtual machine
4 implemented on an operating system that lacks a global mechanism for
5 suspending threads, the method comprising:
6 executing a thread requiring other threads to be suspended;
7 changing a scheduling policy for the thread; and
8 raising a priority of the thread to a highest available priority, whereby
9 changing the scheduling policy and raising the priority of the thread causes the
10 thread to run to completion while other threads do not run.

1 9. The computer-readable storage medium of claim 8, the method
2 further comprising:
3 upon completion of the thread,
4 reducing the priority of the thread to an assigned priority;
5 and
6 returning the scheduling policy of the thread to an assigned
7 scheduling policy.

1 10. The computer-readable storage medium of claim 8, wherein the
2 thread requiring other threads to be suspended includes a garbage collection
3 thread.

1 11. The computer-readable storage medium of claim 8, wherein
2 changing the scheduling policy for the thread includes changing the scheduling
3 policy from round-robin to first-in, first-out.

1 12. The computer-readable storage medium of claim 8, wherein the
2 operating system that lacks the global mechanism for suspending threads includes
3 POSIX.

1 13. The computer-readable storage medium of claim 8, wherein the
2 platform-independent virtual machine includes a JAVA VIRTUAL MACHINE™.

1 14. The computer-readable storage medium of claim 8, the method
2 further comprising performing a garbage collection with the thread.

1 15. An apparatus that facilitates suspending threads in a platform-
2 independent virtual machine implemented on an operating system that lacks a
3 global mechanism for suspending threads, comprising:
4 an executing mechanism that is configured to execute a thread requiring
5 other threads to be suspended;
6 a changing mechanism that is configured to change a scheduling policy for
7 the thread; and
8 a priority raising mechanism that is configured to raise a priority of the
9 thread to a highest available priority, whereby changing the scheduling policy and

10 raising the priority of the thread causes the thread to run to completion while other
11 threads do not run.

1 16. The apparatus of claim 15, further comprising:
2 a priority reducing mechanism that is configured to reduce the priority of
3 the thread to an assigned priority; and
4 a returning mechanism that is configured to return the scheduling policy of
5 the thread to an assigned scheduling policy.

1 17. The apparatus of claim 15, wherein the thread requiring other
2 threads to be suspended includes a garbage collection thread.

1 18. The apparatus of claim 15, wherein changing the scheduling policy
2 for the thread includes changing the scheduling policy from round-robin to first-
3 in, first-out.

1 19. The apparatus of claim 15, wherein the operating system that lacks
2 the global mechanism for suspending threads includes POSIX.

1 20. The apparatus of claim 15, wherein the platform-independent
2 virtual machine includes a JAVA VIRTUAL MACHINE™.

1 21. The apparatus of claim 15, further comprising a garbage collection
2 mechanism that is configured to perform a garbage collection with the thread.